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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/989,411	11/21/2001	Shinichi Miyazaki	0229-0674P	9764

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EXAMINER

JOHNSTONE, ADRIENNE C

ART UNIT	PAPER NUMBER
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1733

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DATE MAILED: 06/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/989,411

Applicant(s)

MIYAZAKI ET AL.

Examiner

Adrienne C. Johnstone

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 2 and 8-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4 and 5 is/are rejected.
- 7) ☒ Claim(s) 3,6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I and the species including two to four core filament bundles in Paper No. 6 is acknowledged. The traversal is on the ground(s) that there is no serious burden. This is not found persuasive because 1) concerning the restriction requirement, the statement of separate status in the art in paragraph 3 of the restriction requirement constitutes a *prima facie* establishment of serious burden which applicants have not rebutted by the required showings or evidence (MPEP 803), and 2) concerning the species election requirement, applicants have not argued that the mutually exclusive species are related as set forth in MPEP 806.04(b) or that they are not patentably distinct, therefore the claims are directed to independent inventions and the serious burden *prima facie* established by the examiner in the species election requirement has not been rebutted by the required showings or evidence (MPEP 803, 806.04(a)-806.04(i), and 808.01(a)).

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 2 and 8-11 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention or species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6. As to claim 8, see the specification p. 14 line 20 - p. 15 line 9: the claim 8 feature belongs to the non-elected single core filament bundle species.

Priority

3. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Japan on November 22, 2000 and based on an application filed in Japan on November 24, 2000. It is noted, however, that applicant has not filed a certified copy of the Japanese applications as required by 35 U.S.C. 119(b).

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Drawings

4. The drawings are objected to because Figures 10A-10C should be designated by a legend such as --Prior Art-- in order to clarify what is applicants' invention. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: RADIAL TIRE FOR HEAVY LOAD WITH SPECIFIED METAL CARCASS CORD.

Claim Objections

6. Claim 5 is objected to because of the following informalities: the equations in claim 5 are presented in improper form. Appropriate correction is required.

To overcome this objection applicants may rewrite claim 5 as --

5. (currently amended) A radial tire for a heavy load as claimed in claim 1, wherein [said waved filament satisfies a relation of the following formulas (1) to (2),]

$$\underline{5.0d \leq Pw \leq 30.0d \text{ and}}$$

$$\underline{0.2d \leq h \leq 3.0d}$$

when setting a wave pitch [is] to Pw and a wave height to h.

$$[5.0d \leq Pw \leq 30.0d \text{ ... (1)}$$

$$0.2d \leq h \leq 3.0d \text{ ... (2)}]$$

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Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 1, 4, and 5 are rejected under 35 U.S.C. 103(a) as obvious over *Mechanics of Pneumatic Tires* in view of Japanese Patent Application 11-36182 A.

Conventional steel radial truck tire (radial tire for a heavy load) construction includes a steel cord carcass extending to a bead core of a bead portion through a sidewall portion and a belt layer between the carcass and a tread, as evidenced by *Mechanics of Pneumatic Tires* (Figure 10.2b) for example. Japanese Patent Application 11-36182 discloses a steel cord for use in the ply (carcass) or belt of steel radial tires (translation paragraphs 0001 and 0008) in order to improve durability by improving rubber permeability in the cord having a 3/9 close-packed core structure (12 filaments all twisted together at the same time) with 11-14 filaments twisted around the core by providing crimps (two-dimensional waves) in the three inner core wires and some of the nine outer core wires before twisting the core wires together (translation paragraphs 0002-0040 and Figure 6). It would have been obvious to one of ordinary skill in the art to provide the

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conventional steel radial truck tire with the carcass cords of JP '182 in order to improve durability by improving rubber permeability in the cords. As to claim 4, the filament diameter of the wires is 0.15 mm - 0.25 mm (translation paragraph 0013) and in all of the exemplary embodiments of the 3/9 + 14 construction the diameters of the sheath and core wires are 0.215 mm (translation paragraphs 32-34). As to claim 5, the exemplary wave pitch P is 3.5 mm = 16.3d and the exemplary wave height h is 0.086 mm = 0.4d (translation paragraphs 32-34).

Allowable Subject Matter

10. Claims 3, 6, and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adrienne C. Johnstone whose telephone number is (703)308-2059. The examiner can normally be reached on Monday-Friday, 10:00AM-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703)308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9311 for regular communications and (703)872-9310 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

Adrienne C. Johnstone
Primary Examiner
Art Unit 1733

Adrienne Johnstone
June 22, 2003

